

ABSTRACT OF THE DISCLOSURE

A high voltage differential amplifier including an input differential pair of low voltage transistors, a sense differential pair of low voltage transistors, first and second high voltage transistors, a low voltage bias transistor, a cascaded pair of low voltage transistors, and an output pair of high voltage transistors. The sense differential pair has a pair of control terminals that detect a common mode voltage of the differential input signal, and establishes a sense node which follows the common mode voltage. The first high voltage device is coupled to the sense node to establish bias node voltage levels which track the common mode voltage, including an output bias node biasing the output pair and a cascade bias node biasing the cascaded pair. In this manner, the terminals of the low voltage devices slide up or down with the common mode voltage and are protected from high voltage levels.